14c

EXTRACTS

FROM HODGKIN'S AND FISHER'S TRANSLATION OF EDWARDS' “DE L'INFLUENCE DES AGENS PHYSIQUES SUR LA VIE,”

Illustrative of the importance of attending to the Hygrometric state of the Air in *the treatment* of Disease.

“ Cold, whatever be its nature, if it be sufficiently marked, tends to diminish the activity with which heat is developed, and damp cold is, of all external means of refrigeration, the best adapted to bring about that change. This serves to explain the advantage which has frequently been derived from the use of cold water, under the varied forms of baths, *douches,* and affusions, in cases of the extraordinary development of heat.

“ Thus, the sponging of various parts of the body, although they be wiped immediately, and whatever be the temperature of the water, provided it be not excessively hot, produces from the moistened surface a more abundant evaporation, whence results a salutary refreshment which may be continued indefinitely.

“ If perspiration by evaporation produces a salutary refrigeration, it produces also other effects, which, when excessive, may in many instances be very injurious.

“ We have seen, in the experiments upon fishes, that by the perspiration from the gills and skin, either of these organs may become dry, although the body should lose nothing of its weight, on account of the absorption of the water in contact with the rest of the surface.

“ One of the situations in which perspiration by evaporation is considerably increased, is found in the higher regions of the atmosphere, upon high mountains.

“ Many persons experience in such situations distress and anxiety in the chest, which they refer only to the rarefaction of the air limiting the extent of respiration. This cause may have its share in the effects; but that which I have pointed out, acts in a more extensive and more general manner.

“ We may thus distinguish their respective influence:—The rarefaction of the air in high situations is accompanied, in fine weather, by a considerable dryness, and hence such an increase of perspiration by evaporation, not only from the skin, but also from the lungs, that the loss of water suffered by those organs will produce a feeling of distress in the chest proportionate to the desiccation.

“ If, as frequently happens upon mountains, the weather change quickly, loading the air with humidity, the evaporation becomes moderate, and the distress diminishes or ceases entirely. If it still continue, it is owing to the rarefaction of the air.

“ Thirst is a symptom which attends the ascent of mountains. It is sometimes intense when it cannot be ascribed to the fatigue of exercise. It is only momentarily satisfied, even by abundant and often repeated draughts. But if the air becomes charged with moisture, the thirst at the same time disappears.

APPLICATION.

“ In a great number of acute diseases, the skin, and a part of the air passages manifestly become dry. Now, after seeing the fatal effects which may be produced upon animals by the desiccation of either organ, the necessity of remedying it as much as possible must be strongly felt.

“ We have seen how insufficient drinking is: the exhalation of watery vapour, to which recourse is sometimes had, produces only temporary relief, and in many cases its cure is impossible. If the atmosphere of the patient be rendered humid, by maintaining near him a sufficient evaporation of water, he will continually, and without effort, breathe a vapour, which will not only arrest the desiccation of the respiratory organs, but will also tend to put a stop to that condition, by means of the absorption of which that vapour is susceptible.”

Chester, 24*th August,* 1833. G. C.